

Subproject	Part	Sequence (5'->3')
GI	BB1001-attP BB1001	gaattcgcggccgctttagagaaaaaaaaaccccgcttcggcgggggttttttttacaggtcactaatccatctaagtagttgattcatagtactggatatgttgttttacagtattatgtagt ctgtttttatgcaaaatctaatttaatatattgatatttatatcattttacgtttctcgttcagctttctgtacaaagttggcattataagaaagcattgcttatcaatttgttgcaacgaacaggtcact atcagtcaaaataaaatcattatttaaaaaaaaaaccccgcttcggcgggggtttttttTACTAGTAGCGGCCGCTGCAg
	BB0034 Lambda Integrase	GAATTCGCGGCCGCTTCTAGaaagaggagaaaatgggaagaaggcgaagtcagtagcgccgggatttacccttaacctttatataagaacaatggatattactgctacagggaccc aaggacgggtaaagagtttgattagggcagagacaggcgaatcgcaatcactgaagctatacaggccaacattgagttattttcaggacacaaacacaagccttgacagcgagaatcaacagt gataattccgttacgttacattcatggcttgatcgctacgaaaaatcctggccagcagaggaatcaagcagaagacactcataaattacatgagcaaaattaaagcaataaggaggggtctgcc tgatgctccactgaagacatcaccacaaaagaaattgcggcaatgctcaatggatacatagacgagggcaaggcggcgctcagccaagttaatcagatcaaacactgagcgatgcattccgagag gcaatagctgaaggccatataacaacaacatgtcgtgcccactcgcgacgaaaaatcagaggtgaaggagatcaagacttacggctgacgaataacctgaaaatttatcaagcagcagaatcat caccatgttggtcagacttgcaatggaactggctgtgttacggggcaacgagttggtgatttatcgaaatgaagtggctgatatcgtatagtgatatctttatgtcgagcaaaagcaaacagg cgtaaaattgccatccaacagcattgcatattgatgtctcggaaatcaatgaaggaacacttgataaatgcaaagagattcttggcgggagaaaccataattgcatctactcgtcggaacc gctttcatccggcacagtatcaaggattttatgcgcgacgaaaagcatcaggtctttccttgaaggggacccgcctacctttcacgagttgcgagttgtctgcaagacttatgagaagcag ataagcgataagtttgctcaacatcttctcgggcataagtcggacaccatggcatcacagtatcgtgatgacagaggcagggagtgggacaaaattgaaatcaataataaTACTAGTAGC GCCGCTGCAg
Reporter	mVenus	CTATTGGACATCGACgaattcgcggccgctttagagatggtgagcaaggcgaggagctgttcaccgggggtggtgcccatcctggtcgagctggacggcgacgtaaacggccacaagttc agcgtgtccggcgagggcgagggcgatgccacctacggcaagctgaccctgaagctgatctgcaccaccggcaagctgcccgtgccctggcccaccctcgtgaccacctgggtacggcctcca gtgcttcgcccgtaccccgaccacatgaagcagcagcattcttcaagtcgcccatgccgaaggctacgtccaggagcgaccatcttcttcaaggacgacggcaactacaagacccgcgccg aggtgaagttcgagggcgacaccctgggtgaaccgcatcgagctgaagggcacgacttcaaggaggacggcaacatcctggggcacaagctggagtacaactacaacagccacaacgtctata tcaccgccgacaagcagaagaacggcatcaaggccaacttcaagatccgcacaacatcgaggacggcggcgctgcagctcgccgaccactaccagcagaacacccccatcgcgacggcccc gtgctgctgcccgaaccactacctgagctaccagtccaagctgagcaaaagaccccaacgagaagcgcatcacatggtcctgctggagttcgtgaccgccgcccggatcactctcggcagtgga cgagctgtacaagcctgctgcaaacgacgaaaactacgcttttagtagcttaataactagtagcgccgctgcagTTGAGCCAGTATGCG
	Repressor	tgatttctggAATTCGCGGCCGCTTCTAGAGAAAGAGGAGAAATACTAGATGAAACCGTTcagtgccgtatctgcatgctgaacttctcccgttccgaccacctgaccacc cacatccgtacccacaccggtgaaaaaccgttcgttcgcacatctcggtcgtaaatcgtcgttccgacgaacgtaaacgtcaccgtaaattgcagcacatgaaacagctggaagacaaagt tgaagaactgctgtccaaaaactaccacctggaaaacgaagttgctcgtctgaaaaaactggttggtgaacgtgctgtaacgacgaaaactacgctcgtggttgcttaataactctgatagtcta gtgtagatctcTACTAGAGggctcaccttcgggtgggcctttctgcgGagtttattcttgacatgg tcccacgcgctgggatactacgtcagTACTAGAGaaagaggagaaataactagtagcgccgctgcagtcaggcga

Colicin	Colicin E2	agagagGAATTCGCGGCCGCTTCTAGAGAAAGAGGAGAAATACTAGATGAGCGGGGGGACGGGCGCGGACATAATACCGGCGCGCATAGCACAT CGGGGAATATCAATGGCGGTCCACGGGCTTGGGGGTGGGCGGAGGTGCTTCCGATGGGAGCGGCTGGAGCTCGGAAAATAACCCCTGGGGAGG TGGTAGCGGCTCCGGTATCCACTGGGGAGGGGGATCAGGTCATGGAAACGGCGGAGGTAACCTAACTCCGGCGGCGGGTCTGGAAC TGGGGG AACTTGAGCGCCGTAGCTGCACCCGTGGCGTTTGGTTTTCCAGCGCTTTCCTCCTGGTGCCGGGGGTTTGGCCGTGAGCATCAGTGCTGGCGCTT TGTCCGCGGCTATTGCGGACATTATGGCAGCGCTGAAGGGGCCCTTCAAGTTTGGGCTTTGGGGAGTCGCATTATATGGGGTACTTCCGTACAGAT TGCCAAGGATGATCCTAATATGATGTCCAAGATCGTCACCAGCTTGCTGCCGACGACATCACGGAGTCCCCTGTCAGTTCCTGCCCTTGATAAAG CTACCGTTAACGTCAACGTCCGTGTGGTAGATGACGTAAAGGATGAACGCCAGAACATTTCTGTTGTATCTGGAGTACCAATGAGTGTCCCGTTGT TGATGCAAAACCCACGGAGCGCCCGGGGTCTTTACGGCGTCAATCCCTGGGGCACCAGTTCTGAACATCTCGGTCAACAATTCTACTCCGGCCGTA CAAAC TTTAAGCCCCGGTGTAAC TAACAACACAGACAAAGATGTCCGCCAGCCGGATTTACGCAGGGCGGGAACACACGCGATGCTGTTATCCGTT TTCAAAAGATAGCGGACACAATGCTGTGTATGTGAGTGTATCCGATGTATTGAGCCCTGATCAGGTTAAGCAGCGCCAAGATGAAGAGAATCGTC GCCAACAGGAGTGGGATGCCACACACCCGTTGAAGCTGCTGAACGCAATTACGAACGCGCCGCGCAGAGCTGAATCAGGCAAATGAAGATGTA GCCCCGTAATCAAGAACGCCAGGCAAAAGCGGTTCAGGTGTACAATAGTCGCAAATCGGAATTGGATGCGGCGAACAAAAC TTTAGCGGACGCGATT GCAGAAATTAAACAGTTCGACCGTTTCGCACATGATCCCATGGCAGGCGGACACCGCATGTGGCAGATGGCGGGTTTGAAGGCTCAACGCGCCAG ACAGATGTCAATAATAAGCAGGCAGCATTTCGATGCGGCGGCTAAAGAGAAGTCAGACGCAGATGCAGCGTTATCGGCGGCTCAAGAACGCCGCAA GCAGAAGGAAAATAAGGAAAAAGACGCGAAGGACAAGCTTGATAAGGAGTCGAAGCGCAACAAACCCGGCAAAGCTACCGGTAAGGGGAAGCCT GTCGGTGACAAGTGGTTAGATGATGCAGGCAAGGATTCAGGGGCCCAATTCCGGATCGCATTGCTGACAAATTACGCGATAAGGAGTTCAAAAAC TTCGATGATTTTCGTAAAAAATTTTGGGAGGAAGTGAGTAAAGACCCTGACTTGTCAAAGCAATTTAAAGGAAGTAATAAGACCAACATTCAGAAAG GAAAGGCTCCGTTTCGCGCGTAAGAAGGATCAGGTAGGTGGGCGTGAGCGTTTCGAACTTCATCACGACAAACCGATCAGTCAGGACGGTGGGGTC TATGATATGAATAATATCCGTGTTACCACTCCAAAACGTCATATTGACATCCACCGCGAAAGTAAaTACTAGTAGCGGCCGCTGCAGagagatcagt
	Immunity-Protein	ATGGAACTGAAACATAGTATTAGTGATTATACCGAGGCTGAATTTCTGGAGTTTGTAAAAAAATATGTAGAGCTGAAGGTGCTACTGAAGAGGAT GACAATAAATTAGTGAGAGAGTTTGAGCGATTAACTGAGCACCCAGATGGAGATCTGATTTATTATCCTCGCGATGACAGGGAAGATAGTCCTGAA GGGATTGTCAAGGAAATTAAGAATGGCGAGCTGCTAACGGTAAGTCAGGATTTAAACAGGGC

Synthetase	atcagtgaattcgcggccgcttctagATGGACGAATTTGAAATGATAAAGAGAAACACATCTGAAATTATCAGCGAGGAAGAGTTAAGAGAGGTTTTAAAAA AAGATGAAAAATCTGCTCAGATAGGTTTTGAACCAAGTGGTAAAATACATTTAGGGCATTATCTCCAAATAAAAAAGATGATTGATTACAAAATGC TGGATTTGATATAATTATATTGTTGGCTGATTTACACGCCTATTTAAACCAGAAAGGAGAGTTGGATGAGATTAGAAAAATAGGAGATTATAACAAA AAAGTTTTTGAAGCAATGGGGTTAAAGGCCAAAATATGTTTATGGAAGTACCTTCCAGCTTGATAAGGATTATACACTGAATGTCTATAGATTGGCTTT AAAAACTACCTTAAAAAGAGCAAGAAGGAGTATGGAACCTTAGCAAGAGAGGATGAAAATCCAAAGGTTGCTGAAGTTATCTATCCAATAATGCA GGTTAATGCGATTCAATTATCCGGGCGTTGATGTTGCAGTTGGAGGGATGGAGCAGAGAAAAATACACATGTTAGCAAGGGAGCTTTTACCAAAAAA GGTTGTTTGTATTACAACCCTGTCTTAACGGGTTTGGATGGAGAAGGAAAGATGAGTTCTTCAAAGGGAATTTTATAGCTGTTGATGACTCTCCA GAAGAGATTAGGGCTAAGATAAAGAAAGCATACTGCCAGCTGGAGTTGTTGAAGGAAATCCAATAATGGAGATAGCTAAATACTTCCTTGAATAT CCTTTAACCATAAAAAAGGCCAGAAAAATTTGGTGGAGATTTGACAGTTAATAGCTATGAGGAGTTAGAGAGTTTATTTAAAAATAAGGAATTGCATC CAATGGATTTAAAAAATGCTGTAGCTGAAGAACTTATAAAGATTTTAGAGCCAATTAGAAAGAGATTATAAactagtagcggccgctgcagatcagt
tRNA	atctacgaattcgcggccgcttctagagAGGCATTTTGTATTAAGGGATTGACGAGGGCGTATCTGCGCAGTAAGATGCGCCCCGATTccggcggtagttcagca gggcagaacggcggactctaaatccgcatggcgctggttcaaataccggccccgggaccaAATTCGAAAAGCCTGCTCAACGAGCAGGCTTTTTTtactagtagcggccgctgca gttctac
OMT-Pair	gaattcgcggccgcttctagaggcacctgaagtcagccccatacgaataaagtgtgaattctcatgtttgacagcattatcatcgataagcttgatcgctggaagattgatcgcttgcaccctgaaa agatgcaaaaatcttgctttaatcgctggtactcctgattctggcactttattctatgtctctttcgcacatcggcgaaaagtcgtgtaccggcaaaggtgcagtcgttatatacttggagattcatATG GACGAATTTGAAATGATAAAGAGAAACACATCTGAAATTATCAGCGAGGAAGAGTTAAGAGAGGTCTTGAAGAAGGATGAAAAGTCTGCTCAGAT AGGTTTCGAGCCAGTGGTAAGATACATTTAGGGCATTATCTCCAAATCAAGAAGATGATTGATTACAAAATGCTGGATTTGATATCATCATCTTGT TGGCTGATTACACGCCTATTTAAACCAGAAAGGAGAGTTGGATGAGATTAGAAAAATAGGAGATTACAACAAGAAGGTTTTTGAAGCAATGGGGT TAAAGGCCAAAATATGTTTATGGAAGTACCTTCCAGCTTGATAAGGATTATACACTGAATGTCTATAGATTGGCTTTAAAAACTACCTTAAAAAGAGCA AGAAGGAGTATGGAACCTTAGCAAGAGAGGATGAAAATCCAAAGGTTGCTGAAGTTATCTATCCAATAATGCAGGTTAATGCGATTCAATTATCCG GGCGTTGATGTTGCAGTTGGAGGGATGGAGCAGAGAAAAATACACATGTTAGCAAGGGAGCTTTTACCAAAAAAGGTTGTTTGTATTACAAACCCT GTCTTAACGGGTTTGGATGGAGAAGGAAAGATGAGTTCTTCAAAGGGAATTTTATAGCTGTTGATGACTCTCCAGAAGAGATTAGGGCTAAGATA AAGAAAGCATACTGCCAGCTGGAGTTGTTGAAGGAAATCCAATAATGGAGATAGCTAAATACTTCCTTGAATATCCTTTAACCATAAAAAAGGCCAG AAAAATTTGGTGGAGATTTGACAGTTAATAGCTATGAGGAGTTAGAGAGTCTGTTCAAGAACAAGGAGTTGCATCCAATGGATTTAAAGAATGCTG TAGCTGAAGAACTTATAAAGATTTTAGAGCCAATTAGAAAGAGATTATAAagatctggatcctctacgccggacgcacgtggccggcatcaccggcgccacaggtgcggtt gctggcgctatatcgcggacatcaccgatggggaagatcgggctcgccacttcgggctcatgaggcatgcggcgccgcttctttgagcgaacgatcaaaaataagtggcgccccatcaaaaaa tattctcaacataaaaaactttgttaatacttgtaacgtgccatcagacgcattccggcggtagttcagcagggcagaacggcgactctaaatccgcaggtcgtggttcaaataccggccccgc ggaccatttatcacagattggaattttgatccttagcgaaagctaaggatttttttagtcgaccgatgcccttgagagccttcaaccagtcagtccttccggtgggcgcggggcatgactatc gtgccgcacttatgactgtcttcttatcatgcaactcgtaggacaggtgccggcagcgctctgggtcattttcgcgaggaccgcttctgctggagcgcgacgatgatcggcctgtcgttgcggt attcggaatcttgactactagtagcgccgctgcag

miniColicin	DNase trypsin- fragment	agagaggaattcgcgccgcttctagagATGAAGCTTGATAAGGAGTCGAAGCGCAACAAACCCGGCAAAGCTACCGGTAAGGGGAAGCCTGTCGGTGACA AGTGGTTAGATGATGCAGGCAAGGATTCAGGGGCCCCAATTCCGGATCGCATTGCTGACAAATTACGCGATAAGGAGTTCAAAAACTTCGATGATT TTCGTAAAAAATTTTGGGAGGAAGTGAGTAAAGACCCTGACTTGTCAAAGCAATTTAAAGGAAGTAATAAGACCAACATTCAGAAAGGAAAGGCTC CGTTCGCGCGTAAGAAGGATCAGGTAGGTGGGCGTGAGCGTTTCGAACTTCATCACGACAAACCGATCAGTCAGGACGGTGGGGTCTATGATATGA ATAATATCCGTGTTACCACTCCAAAACGTCATATTGACATCCACCGCGAAAGaaTACTAGTAGCGGCCGCTGCAGagagatcagt
	Trypsin- Fragment RBS	agagaggaattcgcgccgcttctagagAAAGAGGAGAAATACTAGATGAAGCTTGATAAGGAGTCGAAGCGCAACAAACCCGGCAAAGCTACCGGTAAGG GGAAGCCTGTCGGTGACAAGTGGTTAGATGATGCAGGCAAGGATTCAGGGGCCCCAATTCCGGATCGCATTGCTGACAAATTACGCGATAAGGAG TTCAAAAACTTCGATGATTTTCGTAAAAAATTTTGGGAGGAAGTGAGTAAAGACCCTGACTTGTCAAAGCAATTTAAAGGAAGTAATAAGACCAACA TTCAGAAAGGAAAGGCTCCGTTCGCGCGTAAGAAGGATCAGGTAGGTGGGCGTGAGCGTTTCGAACTTCATCACGACAAACCGATCAGTCAGGAC GGTGGGGTCTATGATATGAATAATATCCGTGTTACCACTCCAAAACGTCATATTGACATCCACCGCGAAAGaaTACTAGTAGCGGCCGCTGCAGaga gatcagt
	DNase optimized	agagaggaattcgcgccgcttctagagATGAAGCGCAACAAACCCGGCAAAGCTACCGGTAAGGGGAAGCCTGTCGGTGACAAGTGGTTAGATGATGCAG GCAAGGATTCAGGGGCCCCAATTCCGGATCGCATTGCTGACAAATTACGCGATAAGGAGTTCAAAAACTTCGATGATTTTCGTAAAAAATTTTGGGA GGAAGTGAGTAAAGACCCTGACTTGTCAAAGCAATTTAAAGGAAGTAATAAGACCAACATTCAGAAAGGAAAGGCTCCGTTCGCGCGTAAGAAGG ATCAGGTAGGTGGGCGTGAGCGTTTCGAACTTCATCACGACAAACCGATCAGTCAGGACGGTGGGGTCTATGATATGAATAATATCCGTGTTACCAC TCCAAAACGTCATATTGACATCCACCGCGGAAAGTAAaaTACTAGTAGCGGCCGCTGCAGagagatcagt